

Lecturas sugeridas

(los nombres completos y links a los libros pueden verlos en el campus)

Clase	Lectura
Introducción al Aprendizaje Automático	Mitchell, Cap. 1 Alpaydin, Cap. 1 Marslan, Cap. 1
Datos	<p>. Nature. AI can be sexist and racist it's time to make it fair. https://www.nature.com/articles/d41586-018-05707-8</p> <p>. Datos generados por minuto: https://techstartups.com/2018/05/21/how-much-data-do-we-create-every-day-infographic/</p> <p>. De los estantes muy altos a la mayor probabilidad de morir en un choque (...). https://www.infobae.com/america/mundo/2019/03/02/de-los-estantes-muy-altos-a-la-mayor-probabilidad-de-morir-en-un-choque-el-mundo-medido-para-los-hombres-pone-en-peligro-a-las-mujeres/</p> <p>. Gender in the world of science https://www.nytimes.com/paidpost/loreal-fondation/gender-in-the-world-of-science.html</p> <p>. [Data statements] Bender, Emily M., and Batya Friedman. "Data statements for natural language processing: Toward mitigating system bias and enabling better science." Transactions of the Association for Computational Linguistics 6 (2018): 587-604. https://direct.mit.edu/tac/article/doi/10.1162/tac_l_a_00041/43452/Data-Statements-for-Natural-Language-Processing</p> <p>. [AI to reduce medical disparities] Chen, Irene Y., Peter Szolovits, and Marzyeh Ghassemi. "Can AI help reduce disparities in general medical and mental health care?." AMA journal of ethics 21, no. 2 (2019): 167-179. https://journalofethics.ama-assn.org/article/can-ai-help-reduce-disparities-general-medical-and-mental-health-care/2019-02</p>
Aprendizaje de conceptos.	Mitchell, Cap. 2

Arboles de Decisión	<p>Capítulos de libros:</p> <p>.Mitchell, Cap. 3</p> <p>.Alpaydin, Cap. 9</p> <p>.Marsland, Cap. 12</p> <p>Artículos:</p> <p>. Induction of Decision Trees . Quinlan. http://hunch.net/~coms-4771/quinlan.pdf</p> <p>. Simplifying Decision Trees. Quinlan. https://www.sciencedirect.com/science/article/pii/S0020737387800536</p>
Evaluación y selección de modelos	<p>Capítulos de libros:</p> <p>.ISLR, Cap. 2 (2.2)</p> <p>.Alpaydin, Cap. 19 (hasta 19.7 inclusive)</p>
Ensamblés	<p>Capítulos de libros:</p> <p>ISLR 2 (2.2.2), 5 (5.2), 8 (8.2, 8.3.3, 8.3.4)</p> <p>Seni, Elder, "Ensemble Methods in Data Mining: Improving Accuracy Through Combining Predictions", Morgan & Claypool, 2010.</p> <p>Otros:</p> <p>http://scott.fortmann-roe.com/docs/BiasVariance.html</p>
Redes Neuronales	<p>Capítulos de libros:</p> <p>Mitchell, cap. 4</p> <p>Libros enteros:</p> <p>Neural Networks. A comprehensive foundation. Haykin</p> <p>Introduction To The Theory Of Neural Computation. Hertz, Krogh, Palmer</p> <p>Deep Learning. Goodfellow, Bengio, Courville</p> <p>Curso online:</p> <p>Neural Networks and Deep Learning. Coursera.</p> <p>Machine Learning. Coursera. Semanas 4 y 5.</p> <p>Tensor Flow Playground.</p>

Otros temas de interés

Tema	Lectura
Aprendizaje no supervisado	<p>Capítulos de libros: Tan, Steinbach & Kumar, Introduction to Data Mining. Cap 8</p> <p>Otros: https://towardsdatascience.com/supervised-machine-learning-classification-5e685fe18a6d https://stanford.edu/~cpiech/cs221/handouts/kmeans.html https://www.cs.princeton.edu/courses/archive/spring19/cos324/files/kmeans.pdf http://axon.cs.byu.edu/~randy/jair/wilson2.html (distancias)</p>
Aprendizaje por refuerzos	<p>Capítulos de libros: Mitchell, cap. 13 Alpaydin, cap. 18</p> <p>Libros enteros: Reinforcement Learning. An Introduction. Sutton, Barto. Algorithms for reinforcement learning. Szepesváry</p> <p>Cursos: UCL: Reinforcement learning. David Silver: https://www.davidsilver.uk/teaching/CS229 Stanford Andrew NG: https://www.youtube.com/watch?v=Rtxl449ZjSc</p>
Minería de textos	<p>Libros: Speech and Language Processing , Prentice Hall. Daniel Jurafsky and James H. Martin (2008) Foundations of Statistical Natural Language Processing. The MIT Press, 1 edition. Manning, C. D. and Schütze, H. (1999). Natural Language Processing with Python. O'Reilly 1 edition. Bird, S., Klein, E., and Loper, E. (2009).</p> <p>Cursos online: Natural language processing with Deep Learning. CS224n. Stanford. Chris Manning Natural language processing Dan Jurafsky Chris Manning. Coursera.</p> <p>Otros: Procesamiento del Habla. Text to Speech. Agustín Gravano. Campus, FCEyN,UBA</p>